SKYDAY SOLAR
AIR CONDITIONERS


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Committed to reducing
the greenhouse effect

SKYDAY SOLAR
AIR CONDITIONERS

# ENTERPRISE VISION

Energy application innovation, enjoy unlimited warm & cool life.
To be the 1ST class energy-saving electrical solution provider.

AIR CONDITIONER | VENTILATION | HEATING | REFRIGERATION

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SKYDAY SOLAR
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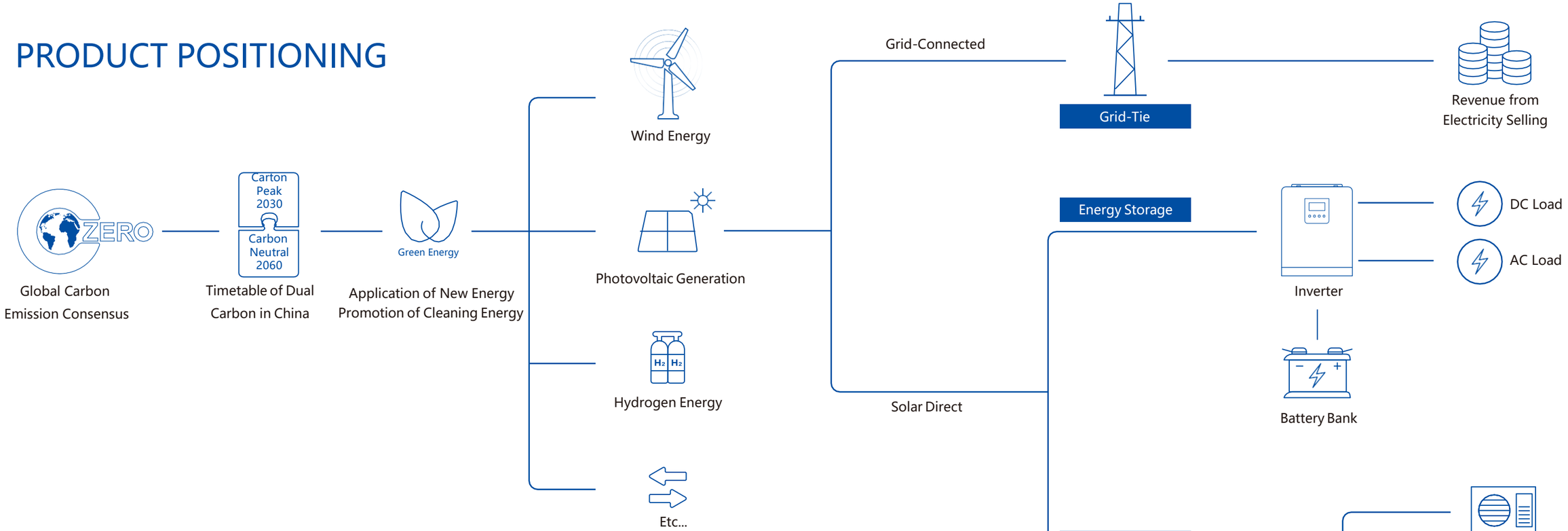
# PRODUCT POSITIONING




## Grid Connected

**Advantage**

Simple system with abundant revenue.
Moderate maintenance cost.

**Disadvantages:**

Investment revenue affected by the policy.
Long return period.

**Application**

Abundant sunlight and large-scale solar energy generation.

## Energy Storage

**Advantage**

Solution of solar energy lacking at night.
AC equipment can be used through energy storage.

**Disadvantages:**

High investment and maintenance cost.
Limited application area and DC equipment.

**Application**

Stable power demand.

## Solar Direct Drive

**Advantage**

No need of inverter and energy storage systems.
Highest utilization rate of solar energy.
Low maintenance cost.
Higher electricity price, higher ROI.

**Disadvantages:**

No backup,use city power only at night.

**Application**

Stable need for air conditioner and hot water during the day.
Areas of high electricity price in the daytime

# CORE TECHNOLOGY

## Self-Dependent Innovation

### ADH Seamless Multi-Energy Switching Control Technology

Seamless switch between dual power inputs.

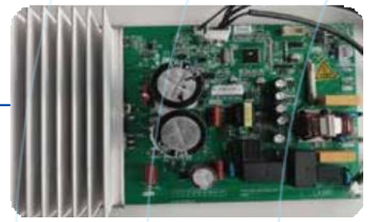
The use of green energy as priority.

Significantly energy consumption reduction

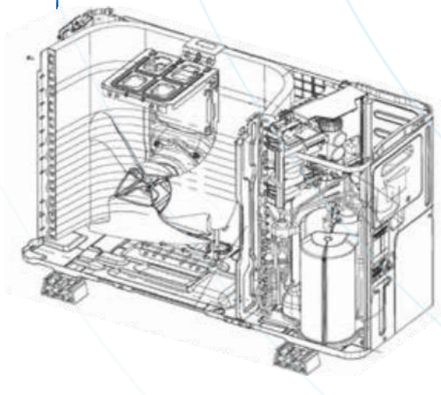
### ADMS Intelligent Energy Management System

Cross-industry integration of new energy introduction solutions using highspeed DSP chips which integrates the control and calculation of BLDC motor drive (FOC), air conditioner frequency control (compressor, fan, etc. operation), AC/DC conversion, DC/DC power following (MPPT) and conversion, solenoid valve, stepper motor, etc., by using innovative green energy methods such as solar power generation, wind power, and photovoltaic storage with air conditioner energy consumption.

The sampling of current, voltage, speed, temperature, etc. of each input circuit is integrated into one chip for driving and regulation, which is an innovative example of cross-industry application of new technology.



Core Moudle：PCBA unit



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DC Inverter Compressed Drive

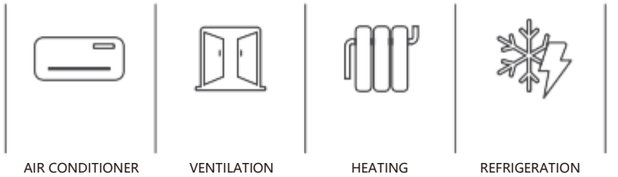
Space Vector Control(FOC)

Power Conversion &Power Tracking

MPPT & DC BOOST

Human-Machine Interaction &Temperature Control

Control Technology Platform



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AIR CONDITIONERS

Low carbon life back to nature,
enjoy a comfortable and pure life
This is not only a way of green life,
but also a healthy attitude towards life

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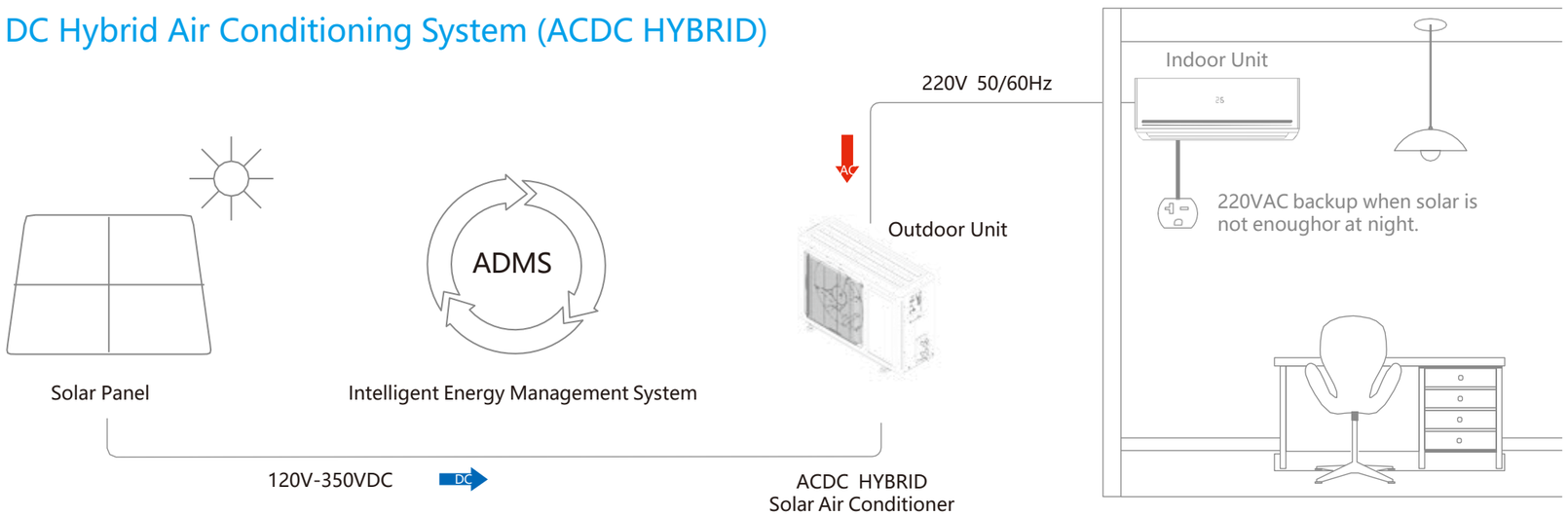
# SOLAR AIR CONDITIONING SYSTEM WORKING PRINCIPLE

## Full DC Hybrid Air Conditioning System (ACDC HYBRID)




### Range of Application

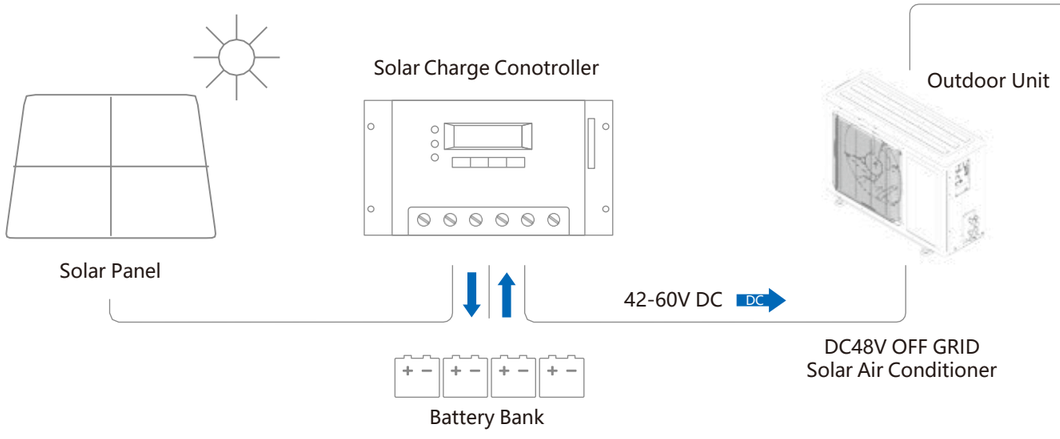

Bank


Office


Residental


School

## Energy Storage O Air Conditioning System (DC48V OFF-GRID)




### Range of Application


Island


Container House


Remote Area


Telecom Station

PRODUCT SERIES

# Mars

SKYDAY SOLAR
AIR CONDITIONERS

| Model | | | ACDC HYBRID 12 DC48 12V RFYZ | ACDC HYBRID 18 DC48 18V RFYZ | ACDC HYBRID 24 |
|---|---|---|---|---|---|
| Capacity | Cooling | | 12,000Btu/ 1.5P/ 1Ton | 18,000Btu/ 2.0P/ 1.5Ton | 24,000Btu/ 3.0P/ 2.0Ton |
| | Heating | | 12,000Btu/ 1.5P/ 1Ton | 18,000Btu/ 2.0P/ 1.5Ton | 24,000Btu/ 3.0P/ 2.0Ton |
| Electric Data | | | | | |
| Power Input | Cooling | W | 825 | 1320/1250 | 1980 |
| | Heating | W | 840 / 800 | 1290/1200 | 1880 |
| Rated Current | Cooling | A | 3.8 / 17.5 | 6/26.5 | 9 |
| | Heating | A | 3.8 / 17.0 | 5.86/25 | 8.54 |
| Power Supply | | Ph,V,Hz | 1Ph, 208-230V, 50/60Hz | 1Ph, 208-230V, 50/60Hz | 1Ph, 208-230V, 50/60Hz |
| | | V | DC120-350V / DC42-60V | DC120-350V/DC42-60V | DC120-350V |
| Performance | | | | | |
| EER | Cooling | W/W | 4.24 | 3.86 / 3.84 | 3.54 |
| | Heating | W/W | 4.16 / 4.37 | 3.95 / 4 | 3.78 |
| COP | Cooling | W/W | 6.8 | 6.4 | 6.1 |
| | Heating | W/W | 3.2 | 3.2 | 3.2 |
| Airflow | Indoor unit | M³/H | 700 | 1000 | 1200 |
| Noise | Indoor unit | dB(A) | 24-37-42 | 33-41-44 | 38-45-48 |
| | Outdoor unit | dB(A) | < 51 | < 54 | < 56 |
| Dimonsion & Weight | | | | | |
| Dimonsion & Weight (Wx H x D) | Indoor unit | MM | 860*308*215 | 1078*325*257 | 1078*325*257 |
| | Outdoor unit | MM | 874*559*353 | 874*559*353 | 989*715*400 |
| Body Dimension (Wx H x D) | | MM | 923*365*280 | 1169*405*366 | 1169*405*366 |
| | Outdoor unit | MM | 913*604×383 | 913*604×383 | 1039*780*468 |
| Net Weight | Indoor unit | KG | 11/13 | 17/20 | 17/20 |
| | Outdoor unit | KG | 30/33 | 35/39 | 44/49 |
| | | | | | |
| Loading Quantity (units only) | 40'HQ | PCS | 230 | 180 | 125 |
| | | | | | |
| Swing(U&D, L&R) | | / | U&D | U&D, L&R | U&D, L&R |
| Liquid Quantity (R410A) | | KG | 1.10 | 1.26 | 1.40 |
| Application Area | | M² | 16-26 | 24-35 | 32-47 |

R410a ECO Refrigerant · Solar Driven · Solar Loop · GMCC/HIGHLY Compressor · WIFI Control · ECO Mode · Left/Right Swing · 20% Faster Cooling/Heating · Moisture Removal · Self Cleaning · High Density Filter

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